

CLAIM AMENDMENTS

1. (Currently Amended) A wind power generation system comprising a wind power generator, and a laser aerovane ~~either~~ mounted on said wind power generator or ~~arranged~~ located near ~~the~~ said wind power generator, wherein said laser aerovane observes direction and velocity of a wind blowing toward said wind power generator, and at least ~~either~~ one of yaw angle ~~or~~ and pitch angle of said wind power generator is controlled based ~~on the basis of results obtained by the~~ of observation by said laser aerovane, whereby output of the wind power generation system, including the wind power generator, is controlled.

2. (Currently Amended) The wind power generation system according to claim 1, wherein said wind power generator ~~is provided with~~ includes a variable-speed generator, and number of rotations of said wind power generator is controlled based ~~on the basis of the results obtained by the observation of~~ by said laser aerovane.

3. (Currently Amended) The wind power generation system according to claim 1, wherein said laser aerovane observes direction and velocity of ~~the~~ wind blowing toward said wind power generator by
emitting a laser beam ahead of said wind power generator ~~from said laser aerovane,~~
~~catching a~~ detecting scattered ~~wave~~ waves of the laser beam, scattered by an aerosol
~~that exists~~ located at any position distant from said wind power generator, at an arbitrary distance, and that floats in the air and moves on the wind at the same speed as the wind, and
detecting a phase difference between ~~said~~ the laser beam and ~~a~~ the scattered ~~wave~~
~~thereof~~ waves in terms of the Doppler effect.

4. (Original) The wind power generation system according to claim 1, wherein, in a wind farm where plural wind power generators are arranged, output of the whole wind farm is smoothed on the basis of results obtained by observation of one or several laser aeroplanes arranged in said wind farm.

5. (Original) The wind power generation system according to claim 1, further comprising any other electric power generating means connected to an electric power system in the same manner as said wind power generator connected to the electric power system, wherein output of the wind power generation system including said wind power generator and said other electric power generating means is controlled on the basis of results obtained

by the observation of said laser aerovane, and output of the whole wind power generation system is smoothed.

6. (Currently Amended) A wind power generation system comprising a wind power generator, a laser aerovane ~~either mounted on said wind power generator or arranged~~ located near the said wind power generator, and an output-smoothing device connected to said wind power generator, wherein

said laser aerovane observes direction and velocity of a wind blowing toward said wind power generator,

~~output adjustment amount~~ of power produced by said wind power generator is calculated in advance based on the basis of results obtained by the observation by said laser aerovane,

power output of the wind power generation system including said wind power generator and said output-smoothing device is controlled based on the basis of conditions obtained by ~~the~~ calculation, and

power output of the ~~whole~~ wind power generation system is smoothed.

7. (Currently Amended) The wind power generation system according to claim 6, wherein said output-smoothing device ~~carries out~~ controls power output ~~control~~ so that power output fluctuation ~~in~~ of said wind power generation system is cancelled when the wind observed by said laser aerovane arrives at said wind power generator.

8. (Currently Amended) The wind power generation system according to claim 7, wherein said wind power generator ~~is provided with~~ includes a variable-speed generator and ~~carries out output control so that~~ said output-smoothing device controls output frequency fluctuation and output voltage fluctuation ~~in~~ of said wind power generation system ~~are~~ within a predetermined range.

9. (Currently Amended) The wind power generation system according to claim 6, wherein said output-smoothing device is ~~comprised~~ selected from the group consisting of any ~~of~~ a storage battery, a reactive power compensator ~~or~~, and an output limiting resistor.

10. (Currently Amended) The wind power generation system according to claim 6, wherein said laser aerovane observes direction and velocity of the wind blowing toward said wind power generator by

emitting a laser beam ahead of said wind power generator ~~from said laser aerovane,~~
~~catching a~~ detecting scattered ~~wave~~ waves of the laser beam scattered by an aerosol
~~that exists~~ located at any position distant from said wind power generator, at an arbitrary
distance, and that floats in the air and moves on the wind at the same speed as the wind, and
detecting a phase difference between ~~said the~~ the laser beam and ~~a the~~ the scattered ~~wave~~
~~thereof~~ waves in terms of the Doppler effect.

11. (Original) The wind power generation system according to claim 6, wherein, in
a wind farm where plural wind power generators are arranged, output of the whole wind farm
is smoothed on the basis of results obtained by observation of one or several laser aerovanes
arranged in said wind farm.

12. (Original) The wind power generation system according to claim 6, further
comprising any other electric power generating means connected to an electric power system
in the same manner as said wind power generator connected to the electric power system,
wherein output of the wind power generation system including said wind power generator
and said other electric power generating means is controlled on the basis of results obtained
by the observation of said laser aerovane, and output of the whole wind power generation
system is smoothed.